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VALUATION OF "RURBAN" LAND

URBAN sprawl is an apt description for the almost unbelievable growth of our cities into the countrysides around them. With this rapid transition from rural to urban development have come many problems for all concerned, and the appraiser is not without his share of difficulties in these areas. This bulletin deals with the fringe areas between new suburban growth and strictly rural areas, sometimes called "rurban" land to denote characteristics both rural and urban.

Typically, these in-between areas are next in line for urban development, and contain a mixture of large and small acreages clustered along or near the radial and circumferential roads or highways serving the central cities and their suburbs. Land uses are also mixed, with various quantities of homesites, farms, commercial uses, and vacant tracts.

The appraiser working in these areas is confronted with a number of significant factors affecting value, including availability of utilities, zoning restrictions, and especially the question of how soon the urban expansion will absorb a particular area. He finds that land values already reflect considerable speculation and far exceed any value based on rural or farm use. In estimating fair market value the appraiser must rely heavily upon market data. In doing so, care must be taken to relate comparable sales to a specific property with regard to location, topography, utilities, zoning, and especially as to size and shape. This last item is not always easy to do. For example, the sales data will range from 1-acre homesites to large acreages; from narrow deep sites to tracts with large frontages and shallow depths; from acreage with good frontage on two roads to acreage with no frontage at all, and reached by easement or private road.

In the following paragraphs we would like to outline a method we have developed to handle this particular problem of relative values of "rurban" type properties based on varying frontages and sizes. To do this we will assume that all other items of value are considered equal, and that the only problem for residentially zoned properties is one of size and frontage.

There are a few basic principles which need stating and upon which most appraisers should agree:

1. Land with highway or road frontage is more valuable than rear acreage without such frontage.

2. The unit acreage value of small tracts, such as homesites, tends to be higher than the unit value per acre of large holdings.

3. The unit value of frontage tends to decrease as the extent of that frontage increases.

4. Depth tables are based on the principle that land decreases in value as distance from the road increases.

Based on these principles, and after years of research, application, and revisions, we have devised two sets of factors shown on the opposite page. Table 1 is for use on the frontages, and table 2 on the acreages. To illustrate their adaptability, let us assume that we have three comparable sales: a homesite 100' x 218' for $2,000; a 4-acre tract 400' x 436' for $10,000; and a 40-acre tract 1320' x 1320' for $67,500. For convenience, we use a front acre of 200' x 218'. In this way, the front acreage is determined by simply dividing the frontage by 200'.

From these sales and by use of the tables we can conclude a base front foot value of $20 and a base acreage value of $1,500, as follows:

Sale #1. $2,000 ÷ 100' = $20 per front foot

This indicated unit value of $20 per front foot will be equal to a factor of 1.00 on table 1.

Sale #2. The value of front acres in the sale of the 4-acre piece for $10,000 is estimated as follows:

400' x $20 x .79 frontage factor = $6,320

Since the frontage contains 2 acres (400' ÷ 200'), the remainder of 2 acres equals $3,680 ($10,000 - $6,320). The indicated base unit value per acre is found by dividing $3,680 by 2, which is $1,840, and then by 1.23 from table 2, which results in a base acreage value of $1,496.

Sale #3. The value of the front acres in the sale of the 40-acre tract for $67,500 is estimated as follows:

1320' x $20 x .60 frontage factor = $15,840

Since the frontage contains 6.6 acres (1320' ÷ 200'), the remainder of 33.4 acres equals $51,660 ($67,500 - $15,840). The indicated base unit value per acre is found by dividing $51,660 by 33.4, which is $1,547, and then by 1.03 from table 2, which results in a base acreage value of $1,502.

Concluded base unit values: $20 per front foot and $1,500 per acre

TABLE 1 - FRONTAGE FACTORS

Frontages	Factors	Frontages	Factors	Frontages	Factors
1-150	1.00	275	.84	750	.70
160	.98	300	.83	800	.68
170	.96	325	.82	850	.66
180	.94	350	.81	900	.64
190	.92	400	.79	950	.62
200	.90	450	.77	1000-1500	.60
210	.89	500	.75	1500-2000	.55
220	.88	550	.74	2000-2500	.50
230	.87	600	.73	2500-3000	.45
240	.86	650	.72	3000 & over	.40
250	.85	700	.71		

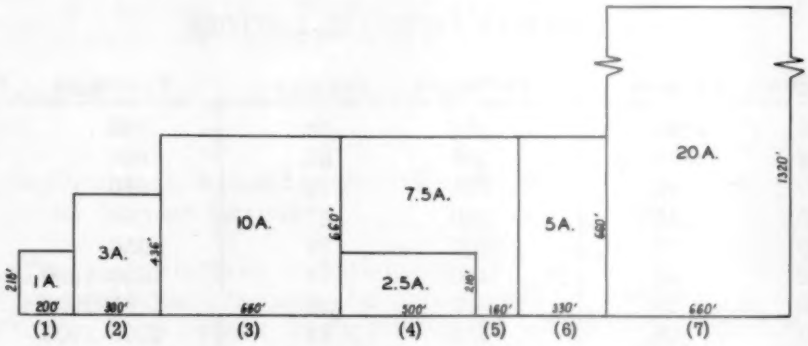
TABLE 2 - ACREAGE FACTORS

Acres	Factors	Acres	Factors
1	1.25	60	.950
5	1.20	80	.900
10	1.15	100	.875
20	1.10	120	.850
30	1.05	140	.825
40	1.00	160	.800

Without the foregoing determination of unit values, the $2,000 sale of the ½-acre site indicates on the surface a value of $4,000 per acre; the 4-acre piece for $10,000, a value of $2,500 per acre; and the 40-acre tract, about $1,690 per acre. We believe more accurate estimates of market value can be obtained by reducing the sales data to base unit values per front foot and per acre. Naturally, various comparable sales used will produce a range of unit values which will need adjusting for reasons other than size and frontage.

Using the hypothetical unit values of $20 per front foot and $1,500 per acre, let us now apply these values with factors from the tables to various parcels of land as shown on the sketch on page 196. A breakdown of the computations for each numbered parcel is shown under the sketch.

As with all mechanical appraisal devices, the method outlined here must be used with caution. We suggest its application as another rule of thumb to be used in appraising. It cannot replace sound judgment and experience, and certainly cannot be used without making adjustments for the many other factors af-



COMPUTATIONS BASED ON $20/FRONT FOOT AND $1,500/ACRE

		Average Value /Acre
(1) 200' x $20 x .90 frontage factor =	$ 3,600	$3,600
(2) 300' x $20 x .83 frontage factor =	$ 4,980	
300' ÷ 200' = 1.5 front acres		
1.5 rear acres x $1,500 x 1.25 =	2,810	
Total	$ 7,790	$2,600
(3) 660' x $20 x .72 frontage factor =	$ 9,500	
660' ÷ 200' = 3.3 front acres		
6.7 rear acres x $1,500 x 1.18 =	11,860	
Total	$21,360	$2,140
(4) 500' x $20 x .75 frontage factor =	$ 7,500	$3,000
(No acreage computation)		
(5) 160' x $20 x .98 frontage factor =	$ 3,140	
160' ÷ 200' = .8 front acres		
6.7 rear acres x $1,500 x 1.18 =	11,860	
Total	$15,000	$2,000
(6) 330' x $20 x .82 frontage factor =	$ 5,410	
330' ÷ 200' = 1.65 front acres		
3.35 rear acres x $1,500 x 1.22 =	6,130	
Total	$11,540	$2,310
(7) 660' x $20 x .72 frontage factor =	$ 9,500	
660' ÷ 200' = 3.3 front acres		
16.7 rear acres x $1,500 x 1.12 =	28,060	
Total	$37,560	$1,880

fecting value. For example, tracts less than 300 feet wide, with considerable depth, should be penalized, if considered as potential subdivision, since there would be inadequate width for a street with desirable lots on either side.

However, we have found that used discriminately, the tables for frontage and acreage factors can be very helpful in the "rurban" areas of mixed shapes, sizes, and uses.

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